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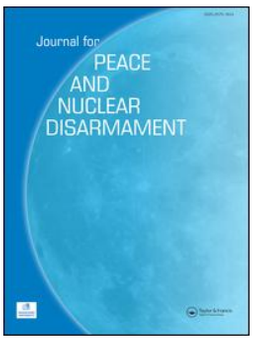

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Stealth-Spectacles: The Discursive Waves of the Nuclear Asian Seascape

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ABSTRACT

When compared to the bombast of nuclear tests, nuclear submarines come with the relatively quiet fantasy of victory-to-come against neighbouring nuclear adversaries. Such political expressions are making their mark in Indian popular culture that hitherto had little commentary to offer on submarines. Outlets such as film and digital media on submarines rest on an *aporia* that resonates across the pleats and folds of secrecy and publicity: there is a felt need to keep covert underwater vessels under wraps, yet also an irrepressible desire to glorify the technological achievement and political posturings enabled by thesecond strike capability of a nuclear armed and powered submarine. Highlighting the tensile allure of both stealth and spectacle, the article considers the ways submarines make a mark in Indian audio-visual and digital media alongside the affective resonance of submarines more widely. By understanding their hegemonic dynamics, we can begin to raise questions about the ongoing nuclearisation of the Asian region and neighbouring arterial seas described here as the Asian seascape.

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By a stretch of the imagination, Arihant – Sanskrit for the conqueror of inner demons such as physical attachment, anger, pride and greed – has now become the conqueror of outer demons in the seas. As the name of India's first nuclear-powered ballistic missile submarines (SSBN), it refers to advanced subaquatic technology designed for strategic purposes, but equally, a culturalist antidote for the fears and insecurities that an enemy might conjure up. Media reports of the Indian Naval Ship (INS) Arihant's 'launch' appeared around 2009, its sea trials began in 2013 and it was commissioned into the army in 2016.[1] After its "deterrence patrol" in 2018, the submarine was feted as a "true projection of power" to cite Saikat Dutta, the South Asia editor of *Asia Times*. In a relatively muted echo of the nuclear tests of 1998, it was held to launch India into the elite nuclear club after USA, Russia, China, Britain and France, with Pakistan too making headways in this direction (Mian, Ramana, and Nayyar 2019).[2] One

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[1]See "India reaches Milestone with Launch of N-powered Submarine". *DNA*. July 26 2009. http://www.dnaindia.com/india/report-india-reaches-milestone-with-launch-of-n-powered-submarine-1277227; INS Arihant: Whose Finger on the Nuclear Trigger at Sea?' *Pakistani Defence*. 2018. https://defence.pk/pdf/threads/ins-arihant-whose-finger-on-the-nuclear-trigger-at-sea.268984/All URLs referenced in this article were last accessed on 16 January 2020.

[2]With the K-15 Sagarika (B05) nuclear-tipped missile, India can boast of sea-launched ballistic missiles that can go further than 700 kilometers. See "India's K-15 Sagarika Submarine Launched Ballistic Missile Completes Developmental Tests". 2013. *Defense Update*. https://defense-update.com/20130127_k5_slbm_complete_tests.html "Security Scan – INS Arihant" Rajya Sabha TV https://www.youtube.com/watch?v=jmZr9wtez-I.

broadcaster announced that the SSBN was "the most sophisticated weapons system which have been devised in the history of mankind", which only a handful of countries have mastered.[3] More sober evaluations remind us that the INS Arihant is still the start, the "first operational punctuation" in the words of the director of India's Society for Policy Studies, C. Udhay Bhaskar (2018). It remains more a training platform for submarine crews and "primarily a technological demonstrator, based on the Russian Project 971 *Akula I*-class nuclear-powered attack submarines, rather than a fully operational SSBN" (Gady 2016). As a "technological demonstrator", it is a prototype rather than a functional object. But the vessel's reception has not stopped the INS Arihant from being feted as advancing and even completing the sea leg of India's nuclear triad well before it went on deterrence patrol and became operational in 2018. The phenomenon is symptomatic of a postcolonial disposition to reshape, aggrandise and embed technopolitical emergences in subcontinental soil, sky and now sea.

Aspirations for full-spectrum deterrence were proposed in the draft Indian nuclear doctrine of 1999, calling for the country's nuclear forces to 'be based on a triad of aircraft, mobile land-based missiles and sea-based assets'.[4] Having tested nuclear weapon designs in Pokhran a year earlier, and the ballistic missile launches that ensued, completing the sea-based deterrent would seem the inevitable next milestone for hawkish elements of the government when it comes to showing off their mettle to long-term adversary, Pakistan. Underlying this India-Pakistan axis are tensions that are resurfacing between India and China, intensified by the latter's collaborations with Pakistan and ongoing Sino-Indian border disputes. This is a view that is underscored by claims that, apart from domestic interests, India's nuclear capability in 1998 was, in fact, addressed less at Pakistan and more at China (Thomas and Gupta 2000, 3; Chengappa 2000, 37, 44).

The louder bluster of the former has eclipsed the quieter dynamics of the latter in this nuclear 'trilateral stand-off" (Rajain 2005, 24) with its dyadic spin-offs – that is, Indo-Pakistan and Sino-Indian tensions and conflicts. Bhaskar (2018) refers to it 'as a very challenging weapons of mass destruction (WMD) region, what is euphemistically referred to as "a rough neighbourhood"'. While sabre-rattling goes on in loud spurts between India and Pakistan, the focus of nuclear anxiety among India's strategists is less Chagai, the site of Pakistan's nuclear tests, and more Hainan Island, the location of China's nuclear submarine base. The subcontinental shift has intensified from west to east towards the Indo-Pacific oceans, the prowling domain of the Chinese sea force. Under the right-wing Bharatiya Janata Party government that was re-elected in 2019 with a landslide victory, military command has expanded in the Andaman and Nicobar islands, and the state has renewed connections with Vietnam with ambitions to increase India's might as a maritime power in the region (Bagchi 2014).

This is in a broader context of, on the one hand, India's continuing collaborations with Russia, and on the other, in the aftermath of the US–India Civil Nuclear Agreement (2005), alliance with USA that itself has increased its naval presence in the Indian Ocean

[3]"INS Arihant, Its Technologies, Missiles And Nuclear Reactor", *NDTV*, 6 November 2018 https://www.youtube.com/watch?v=FZL0SxPjWU4.

[4]National Security Advisory Board. 1999. *Draft Report of National Security Advisory Board on Indian Nuclear Doctrine*. New Delhi: Ministry of External Affairs, National Security Advisory Board.http://mea.gov.in/in-focus-article.htm?18916/Draft+Report+of+National+Security+Advisory+Board+on+Indian+Nuclear+Doctrine See "Security Scan – INS Arihant" Rajya Sabha TV https://www.youtube.com/watch?v=jmZr9wtez-I.

with ambitions to make India a strategic partner in the "push-back" against China (see Gopalaswamy 2018; Levy 2016). Such developments have substantial game-changing implications for the Indian Ocean and neighbouring arterial seas as an economic and political theatre for marine and submarine forces – an oceanic arena for supremacy that might be referred to as the Asian seascape.

It is representations of subaquatic nuclear vessel systems that we focus on in this article – vessels that are difficult to see and hear through their "acoustic quieting" yet at a political cultural moment where spectacle, machismo, and grand claims have become *de rigeur*. There is a felt need to keep covert underwater operations under wraps, yet also an irrepressible desire to glorify the technological achievement and political posturings enabled by thesecond strike capability of a nuclear armed and powered submarine.[5] Similarly, outlets such as film and digital media on submarines rest on an *aporia* that resonates across the pleats and folds of secrecy and publicity akin to the Hegelian "labor of the negative" (Hegel 1977; see Taussig 1999). In other words, representations of the technology advance by negation, each time becoming more significant as they wrestle with its opposites: stealth vs spectacle, secrecy vs information, quiet vs noise, prototype vs functionality, indigenous vs international, us vs them, and aspiration vs mastery.

What we could call the stealth-spectacle complex is a unique counterpoint to familiar nuclear discourses about bombast, and previous work on (audio-)visual forms in constructing a spectacular pro-nuclear narrative in India (Abraham 2009; Kaur 2013a). On the one hand, spectacle has long been a characteristic feature of international nuclear discourse – from the iconic mushroom clouds to the rise of grotesque creatures like Godzilla out of nuclear mutation (Boyer 1985; Weart 1988; Gusterson 1998; Kaur 2013a). The awesome threat of massive destruction has been viewed in terms of the contradictions of the sublime – intrigue yet horror (Masco 2006) and their schizophrenic affective nuances (Kaur 2013b).

On the other hand, stealth in nuclear matters is usually associated with the ascendancy of Cold War from the mid-1940s when espionage was levelled at the USSR and scientific spies who helped the country leapfrog into the nuclear club, now represented by the United Nations Security Council with USA, USSR, Britain, France and China at the lead table. This narrative of wartime espionage is contrasted with "honest" endeavours as go received accounts of the US Manhattan project to build the atom bomb for the nation if not humanity at large in its conceived deliverance from fascist powers. The Manichean discourse continues today with the identification of "rogue" nuclear states such as Iraq, Iran and North Korea – countries held to have developed nuclear weapons with the benefits of espionage. In this rather skewered discourse, India has presented itself as a "good nuclear power" intent on developing it for "peace", even though it remains a country that has not signed the Nuclear Non-proliferation Treaty or other nuclear conventions (Perkovich 2001).

The addition of nuclear submarines to the subcontinent's subaquatic armoury raises another set of questions. How does a stealthy subaquatic nuclear association fit the existing Indian self-representation as transparent and reliable on the nuclear stage? As their forte lies in invisibility and undetectability, nuclear submarines must eschew

[5]On the discrepant nature of rules and practices to do with secrecy and disclosure, see Gusterson (1998, 68–100), Taussig (1999) and Kaur and Mazzarella (2009).

spectacle in the customary way of military prowess. Yet their development is something that nuclear nationalists want to celebrate, and in the postcolonial context, a welcome of new arrival. How then does Indian popular culture transform nuclear submarine into an object of spectacle beyond dockside parades with uniformed sailors standing to attention? This question is especially pertinent given reports of the Arihant's technical failures, accidents and delays with which observers of the Indian nuclear and defense scene are all too familiar.[6]

In this article, we first consider why the SSBN holds a magnetic pull across much of the middle-class population in India who are aware of the nuclear technology. The phenomenon is due to a number of factors to do with diplomatic-political rationales, postcolonial "catch-up", threat perception, technofetishism, the sway towards self-reliance and indigeneity, the imbrication of the state in industry and economy, national development as well as more affective resonances to do with machismo and fulfilling a preordained national destiny.

We then consider the appearance of submarines in specific audio-visual and digital outputs as a remarkable latter-day register of stealth-spectacle tensions in Indian popular culture. The examples demonstrate that a pure realm of politics or indeed international relations or strategic studies do not exist outside of their discursive framing as distinctly separate. As Itty Abraham states:

> Politics as a fundamentally social activity, the state as a set of institutions embedded in and inseparable from social forms and cultural meanings, power as the conjoining warp of places, people, events and meaning – these and other substantial conceptions are lost to conventional understandings of nuclear power that seek to limit this object to instrumental and rational analysis (2009, 3).

A strategic studies framing of nuclear submarines begs a larger purview that interrogates cultures of power as much as it does the power of cultures. Since at least the 1960s, Antoni Gramsci's theories (1971) have been adapted for considering the cultural articulations of power, consent and contestation. This has led to a burgeoning of cultural-political analyses to do with class, race, ethnicity, gender and sexuality (Williams 1963, 1973; Hall 1973, 1981; Willis 1978; Hall and Jefferson 1993; Gilroy 1993; Milestone and Meyer 2012) that have been extended to studies of nuclear issues (Abraham 2009; Kaur 2013a). While cultures of the nuclear bomb have held centre stage and been examined in a handful of festivals, comic books and films in India (Kaur 2013a) including a recent one on the nuclear tests at Pokhran in 1998 in *Parmanu* (dir. Abhishek Sharma 2018; see Thakur 2018), cultures of nuclear submarines have remained largely unexamined.

Popular film has long played a significant part in responding to while influencing memorable events and public opinion in India (Appadurai and Breckenridge 1988; Kaur and Sinha 2005). By the turn of the new millennium, digital media has also assumed widespread prominence. Despite electricity and Wi-Fi connectivity challenges, India with

[6]"There has been a history of delays and mishaps with the submarine – a recent one was in 2018, when someone reportedly left the 'hatch on the rearside' open as the Arihant was in harbour, casting one cynic to say: 'The sub might be nuclear powered, but the hatches, sadly, are still idiot powered.' Others have doubted this account 'for the submarine has no hatches there. INS Arihant is based on Russian double hull design which has a sealed nuclear reactor section' (See Mian, Ramana, and Nayyar 2019). See 'Indian Nuclear Submarine Grounded after Hatch left Open', *The Times of Israel*, 10 January 2018. https://www.timesofisrael.com/indian-nuclear-submarine-grounded-after-hatch-left-open/and The Trouble with India's Slow Naval Buildup – Analysis". *Eurasia Review*, October 7 2019. https://www.eurasiareview.com/07102019-the-trouble-with-indias-slow-naval-buildup-analysis/.

its huge youth population has, along with China, become the country with the largest number of social media users (Scroxton 2017). A large proportion of them represent the views of, as Udupa (2016) concludes from her research on online nationalism: the "middle class on steroid". Large capital-intensive filmic projects are complemented by a gamut of tech-savvy offerings produced for online outlets with relatively little budgets and production times, thus making them a more instantaneous and dynamic platform of exchange for considering public reception. The digital realm was in fact the first to show signs of effervescent engagements with the promise of nuclear submarines in millennial India. This fascination was then amplified by popular films that themselves became integrated into digital outputs. This media, therefore, forms the key sites with which to examine subcontinental submarine imaginaries.

Deep Assertion

The term, nuclear submarines, groups two types of vessels that differ significantly in their profiles and uses – nuclear-powered submarines (SSN, SS being an acronym for "submersible ship"), and nuclear-powered ballistic missile submarine (SSBN). Together they represent the apex of naval technological achievement with SSBN as the king of the seas, valued because they can go farther and deeper into the sea for longer periods of time to avoid detection while also being able to launch missiles. They are nuclear-powered and nuclear-armed with different submarines having different capacities.

The SSBN keeps alive India's diplomatic stance of No First Use, a responsible nuclear power that could perhaps secure a permanent seat at the UN Security Council, indicating a postcolonial anxiety about international credibility. This is despite the fact that the No First Use policy has weakened over the years in the movement of a draft in 1999 to an official nuclear doctrine available in 2003. In the latter, the doctrine states that in the event of a chemical or biological weapons attack, nuclear retaliation was an option (Sundaram and Ramana 2018). Yet the rhetoric of No First Use and India as a "responsible nuclear power" continues among Indian officials and media reporters alike (Sakhuja n.d.). Such views are paralleled with plans for more SSBNs including the current sea trials of INS Arighat (originally named INS Aridhaman) to further bulwark second strike prowess.[7] Only recently, India's former Defence Minister A.K. Antony stated that INS Arihant supports India's No First Use nuclear weapons policy (Sakhuja nd). But such statements are hinged on moot contradictions – both specific to India and generic to all nuclear submarine fleets (see Mian, Ramana, and Nayyar 2019).

General Balraj Singh Nagal, who ran India's Strategic Forces Command within its Nuclear Command Authority from 2008 to 2010, underscored the reality of China posing as both threat and stimulus to India: "We have to follow the technological curve. And where China took it, several decades before us, with the hydrogen bomb, India has to follow" (cited in Levy 2016). The technological curve has led the Indian navy to master the latest advances in submarine technologies and the "long prioritized development of full blue-water expeditionary capabilities to safeguard the Indian Ocean rather than a more limited force tailored toward Pakistan's coastline in the Arabian Sea" (O'Donnell and Joshi 2014, 476). Following this curve is, more often than not, a quiet

[7]https://www.militaryfactory.com/ships/detail.asp?ship_id=ins-arighat-s74-ballistic-missile-submarine-indian-navy.

and calculating one, to the point that much public discussion falls to conjecture. Their "arrival" is also more staggered. While nuclear tests quite literally have a bombastic resonance, nuclear submarines are like quiet mercenaries who never so much as arrive with aplomb, but rather skulk through the undergrowth. Less the roar of the lion and more the lurk of the deep sea shark, such a position is clearly evident in descriptors for submarines in general such as "killer sharks", "hunter-killers" and predatory variations thereof.

Such a stalking machismo is vindicated in a context of a history of invasion, colonial theft and techno-scientific and military denial and lag (Abraham 1998).[8] For India to be non-reliant on and "catch-up" with the west (Gupta 1998), there is an overwhelming fixation with techno-science as a silver bullet solution to the country's problems. This techno-determinism is overly reliant on fetishising the instruments of power (Biswas 2014), rather than careful calibration of their component part in a cohesive strategy. Indeed, "lost at sea" (O'Donnell and Joshi 2014, 419) describes India's nuclear submarine strategy for it not being driven by a coherent strategic plan. The socio-psychological pull of nuclear submarines is nevertheless immense, signalling a sense of lost-and-found after an era of (neo-)colonial theft.

With a focus on Britain, Cox, Johnstone, and Stirling (2016) argue that no matter what individual politicians feel about nuclear weapons programmes or the exorbitant expense of continuing them, once entangled in the politics of statehood and in lieu of transferable technological expertise, they are inclined, however reluctantly, to accept the status quo with respect to its nuclear submarines. They term this attachment to nuclear power the "deep incumbency complex".

In India, this deep incumbency on nuclear submarine systems is complicated by a series of issues that range from historical baggage, postcolonial angst about responsible progress, indigeneity, threat perceptions, technological fetishism, and symbolic significance. This makes the "deeply incumbent" complex of a particular valence for countries in the global South with a history of colonialism. While earlier intent on carving a "third way" held sway (Bhagvan 2019), the post-1960s ambition is more linear and undeviating – to make good and catch-up with the rest in the nuclear elite club, gripped in a compelling discourse of what might be termed deep assertion. Tied in with national security issues, deep assertion is a discourse that relies upon desires for international prestige and respect based on a history of denials and loss. The difference between deep incumbency and deep assertion is, therefore, a qualitative one – between the (reluctant) *acceptance* of nuclear capabilities and the *glorified celebration* of nuclear arrival on a global platform, a party that less and less people in India are willing to shut down.

Self-reliance in defence – that is, military technologies made in India by Indians – adds to aspirations about nuclear submarine. As with other technological advances evident in reactors, tests, missiles, and space technologies, indigeneity has itself become integral to the INS Arihant's public framing.[9] Increasingly, with the liberalisation of the economy, desires to compete with more powerful countries have become apparent on all fronts, whether they be described as political, economic, scientific or cultural. Indigeneity has

[8]Brajesh Mishra stated: "If you look at Indian history we were defeated not because our soldiers were not brave enough. But because they lacked superior technology" (cited in Chengappa 2000, 45). Comparative points can be made with respect to Pakistan's and China's history of colonialism (see Rajain 2005: 276–278 and 99).

[9]On the framing of discourse about a nuclear submarine in Brazil, see Herz, Dawood, and Lage (2017).

received an extra boost with the BJP's "Make in India" announcement. This national initiative was launched in 2014 in the year the BJP was first elected into power in order to 'transform India into a global design and manufacturing hub'.[10] The economic design and manufacturing ambitions extended also to military sectors including nuclear submarines. As one media report describes the production of INS Arihant:

> The project's pan-India spread - headquartered in New Delhi, hull fabrication facility in Gujarat, missile development in Hyderabad, nuclear reactor in Tamil Nadu and final assembly in Visakhapatnam – is the biggest Make in India industrial ecosystem - nearly 60 per cent of the submarine's components are indigenous (Unnithan 2017).

Self-reliance is a critical plank on which discourses of Indian defense and technological abilities are generated more widely. Given that the submarine is of Russian design, this foreign factor is finessed and reshaped so as components can be decreed "nearly 60 per cent" Indian. The example is more a case of "Make *into* Indian" rather than "Make in India" – a sleight of hand that is aggrandised by pomp, ceremony, media glorification and new nuclear narratives elaborated below.

Related to this stance of statehood are infrastructural matters within which nuclear submarines are embedded unleashing another array of catalytic factors. Many analysts and critics have questioned China's globalising ambitions – most prominently with respect to challenging US supremacy in the region, but also to in terms of posing a challenge to India's influence. China has sought to gain economic supremacy through establishing what is termed by others as the "String of Pearls" – that is, creating a network of ports and facilities all the way from China to Somalia. In 2017 such initiatives to build systematic maritime and land-based links were regrouped and renamed as the Belt and Road Initiative (BRI) – a 900 billion dollar "belt" plan intended to circulate the north of India and into central Asia and Europe, on the one hand, and a seaborne "road" from the south China Seas to east Africa and the Mediterranean, on the other.[11]

Those in India see such China-backed initiatives as "simply a smokescreen [that] China is using to seize strategic control of the Indian Ocean" (Weber 2017).[12] In 2014, for instance, Chinese submarines were given permission to dock in Sri Lanka, raising further alarm bells in Indian political corridors as to what the government saw as its area of regional influence.[13] This is to add to their woes over the Doklam standoff along the India-Bhutan-China borderlands from 2017. The tensions were prompted by China's construction of a road close to the Indian border.

Adding to the ongoing tensions and military escalation over water and land, the India government has preferred to opt out of China's grand globalising initiatives. Instead, while China encircles, India throws out its own infrastructural initiatives with another smokescreen, the Sagarmala programme, in 2016. Literally meaning "necklace of the sea", Sagarmala comes with the tagline, 'port-led prosperity'.[14] To these ends, work is afoot to

[10]"Make in India". http://www.makeinindia.com/about.
[11]The belt in BRI refers to land-based developments, the road to seaborne ones. corresponding to "one belt, one road" in Mandarin, *yi dai yi lu*. https://www.theguardian.com/world/2017/may/12/the-900bn-question-what-is-the-belt-and-road-initiative.
[12]On China's four point modernisation programme, see Rajain (2005, 101–102).
[13]After China docked a submarine in Colombo in 2014, permission to dock again was refused in 2017 after Modi's visit to the island capital (Weber 2017).
[14]"PM's Inaugural Speech at the Maritime India Summit, 2016." *Sagarmala*. http://sagarmala.gov.in/media/press-release/pms-inaugural-address-maritime-india-summit-2016.

modernise and enlarge extant deep ports as well as build new multimodal facilities along India's coastlines. Nowhere in its publicity and announcements is there any mention of defence-related matters, nor indeed submarine docking, facilitation, or maintenance in this exercise. But the line between economics and geopolitics is a fuzzy one. In view of a track record of reactive politics rather than grand strategies, it could be reasonably inferred that submarines including nuclear ones play a component part in the understory of port-led development in India. There is a deep politics to deep ports that interleafs with the deep assertion of nuclearised statehood (see Jungk 1979; Kaur 2013c). State-orchestrated yet neoliberal port-led development is to release unstated dividends including sovereignty of the sea and facilitating the capabilities and maintenance of nuclear submarines – the assertive iron fist in the velvet glove of development for all (Kaur 2020).

Affective Waves

Against such developments and the public launch of the INS Arihant, nuclear submarines have gained more traction in the Indian middle-class public imaginary. They are held to be vessels pregnant with multiple promises to do with technological attainment, and a strong, competent, competitive and combative India with the expansion of the country's naval nuclearity and supremacy in the oceans.

Worldwide, submarines particularly those that are nuclear-fuelled and weapons-enabled have played an enthralling part in cultural imaginaries that resonate along a spectrum ranging from a "society of spectacle" (see Debord 1994) to what might be described as a "society of stealth". These stealth-spectacle tensions influence representations of military submarines as well as profoundly penetrate lived experience and opinion on such covert vessels of power.

To date, there is little scholarly research on the affective spaces that submarine technologies occupy (but see Koldau 2010, 2011). Global fantasies unleashed by submarines first emerged in images and literature from the eighteenth century. They were then transposed into audio-visual media by the turn of the twentieth century. Submarines in western movies are well-known from the time of Captain Nemo and his adventures *20,000 Leagues under the Sea* – the first version in 1906 as a silent movie.[15] Beginning as features of fantasy, submarines soon became reined into patriotic motives. War movies -where most of the action was underwater -began to emerge in 1915 in USA with *The Secret of the Submarine* (dir. George L. Sargent). After their strategic role in World War II was publicly recognised and feted, a distinctive genre of submarine films emerged from the 1940s. The genre drew upon what Linda Maria Koldau describes as:

> the fascination of the underwater setting; the aura of the secret weapon; the interaction of man and technology; the special qualities of the submariners' service – their youth and their heroic combat; and the father figure of the commander (2010, 19).

Submarines are now beginning to make a mark in aspects of Indian popular culture. The propulsive force is overwhelmingly directed at Pakistan, a country that India can imagine

[15]This followed a short experimental adventure from 1904, *Le Voyage à Travers l'impossible* (*An Impossible Voyage*) (dir. Georges Méliès, 1904). The film shows members of the Geographic Society on a world trip that includes use of a submarine. "All Submarine Posters A-Z with Posters". http://submarinemovies.com/submarine-movies-all-titles-a-z-with-posters/.

itself vanquishing so therefore suited to the Manichean, hero–overcomes-villain formula of much of popular fiction (see Kaur and Eqbal 2018, 126–127). China and a penumbra of other superpowers lurk in the background as contextual catalysts to drive ambitions for parity if not triumph.

While a vibrant site of contestation, popular culture (re)produces a dominant complex that depends in large part on the legitimacy and naturalness of the control of production, consumption, individualism, technocracy and the national security state (see Williams 1963, 1973; Hall 1973, 1981; Willis 1978). Attendant with these features is a promise of pleasure, happiness and fulfilment for the individual, family, community and/or nation (see Gitlin 1986; Storey 2006; Dwyer and Pinney 2001). This complex easily encompasses nuclear technologies that tie national security issues with the promissory note of strength, saviour and sovereignty of the nation. The fact that the barest of information is divulged about submarines is for the most part accepted. The fact that "nuclear submarines are virtually undetectable" (Unnithan 2017) adds to their public intrigue and necessity.

There are several short films on India's SSBN based on a mix of found (audio-)visual footage, dramatic music, user commentary, and/or PowerPoint slides available on YouTube that we shall return to below.[16] Most of these have been put up by Indian youth with a penchant for digital and defence technologies, and drawn to an exciting new world of submarines. There is also a popular film on the significance of submarines to India's defence – although not yet with nuclear submarines – *The Ghazi Attack* that was released in 2018 (dir. Sankalp Reddy, Figure 1).

Based on a book, *Blue Fish: The War Beneath* (Sankalp 2014), written by the film's director, *The Ghazi Attack* relates events from the 1971 India-Pakistan war that concluded with Bangladesh's independence.[17] It tells the tale of navy officers on the INS Rajput (S21), a diesel-electric submarine that destroyed a technologically more superior submarine in the hands of Pakistan, PNS Ghazi, which was on its way to attack India's aircraft carrier INS Vikrant. This is of course the Indian interpretation of events. The Pakistani version of events is that PNS Ghazi was blown up either due to an internal explosion or when it entered one of the underwater mines that it was laying off India's eastern coastline near the port, Visakhapatnam.[18]

While the film includes only diesel-electric submarines, the nuclear issue is certainly in the background. According to reports of the 1971 war with Pakistan, the need to go nuclear and for India's prime minister Indira Gandhi to sanction a "peaceful nuclear explosion" in 1974 was triggered by ominous threats posed by the US (Joshi 2019). The US Task Force 74 that included the nuclear-powered USS Enterprise was sent by President Richard Nixon into the international waters of the Bay of Bengal to show support for Pakistan. This led to the USSR sending a nuclear-armed submarine to trail the task force. As go popular recollections, the superpower stand-off convinced Gandhi of the importance of India's nuclear weapon programme (Simha 2011).

This drive to weaponise the waters is necessitated in *The Ghazi Attack* due to the fact that East Pakistan (later Bangladesh) was surrounded on all three sides by India and a sea

[16]Examples include https://www.youtube.com/watch?v=x39getr7QJE https://www.youtube.com/watch?v=V751uz_4Nvk https://www.youtube.com/watch?v=B0xzmMGXcJ8 https://www.youtube.com/watch?v=NHUrj1fxFGs.
[17]*The Ghazi Attack Official Trailer*. https://www.youtube.com/watch?v=Xn2qOnKuOoc.
[18]See for instance the film *Ghazi Shaheed* (*Ghazi Martyr*, 1998, dir. Kazim Pasha) produced in Pakistan by Inter-Services Public Relations.

route was the only feasible way to send supplies to the East Pakistani army. However, the INS Vikrant was a major obstacle en route. As the Pakistani official says, this "elephant of the sea" comes with "21 aircrafts, Sea-Hawks, Aleez, the French anti-submarine jet, [and] long range rocket launchers". So a plan was hatched to sink the Indian carrier, and if that was to prove too difficult, to set up a decoy attack on an Indian port in order to open up the sea route.

The melodramatic, masculinist and nationalist aspects of the film align themselves with the existing frame of war movies in confrontation with Pakistan that came to prominence in the 1990s with examples such as *Border* (1997, dir. J.P. Dutta). However, *The Ghazi Attack* also marks a novel development, given that it is "India's first submarine warfare film" in which the fulcrum of the action is in the sea (Praveen 2014).[19] As such, it compels a special attention to endless seascapes and soundscapes as parts of its unique stealth-spectacle complex.

The aquatic aesthetic in such submarine films is persuasive through five main overlapping devices: first, identifying the sea as a hitherto overlooked domain and yet important combat arena in which a "responsible power" such as India seeks to gain supremacy – a historical precedent being set by India's attack on PNS Ghazi. The spectacle of stealth and bombast converge far out and deep in the sea – a new vista of oceanic possibilities combined with the unknown dangers of its depths. The film is introduced with the announcement: "India and Pakistan have fought four battles – 1947, 1965, 1971 and 1999. But people may not know that there was another battle which was fought. Far away . . . under the sea." This statement is immediately followed by a torpedo blasting out of an inky blue submarine.

With such narrative devices, the film promises a privileged entry to a secret realm where naval protagonists go on a "classified mission". The crew know that they "will receive neither recognition nor medals. But we'll be a part of India's future", as the lieutenant commander later tells. Through negation, the selfless bravery of the protagonists is further venerated in this retrospective spectacle. Through the emphasis on secrecy and non-disclosure, the significance of the submarine to India's sovereignty and prowess is advanced.

As with other popular films in India, the film constitutes interventions in Hollywood and European precedents in submarine warfare films but ones that amalgamate them with the Indian melodrama convention (Thomas 1995; Kaur and Sinha 2005; Vasudevan 2011). Simultaneously, the movie signals a novel murky blue aesthetic departure for Indian film history triggered by nationalist and militaristic ambitions in the oceans. For the film trailer, the aquatic aesthetic is even juxtaposed by a revolving *chakra* positioned at the centre of the Indian flag.[20] Several scenes in the film show the submarine descending, ascending, gliding and accelerating through an awesome blue

[19] *Raazi* (dir. Meghna Gulzar 2018) is a spy movie around the time of the India-Pakistan war in 1971. It alludes to the role of crucial intelligence picked up about an imminent underwater attack on Vikrant, and India's response by attacking the Pakistani submarine before it could do any damage to the aircraft carrier. There was also an earlier Indian underwater film about seeking pearls in *Anmol Moti* (dir. S.D. Narang 1969). It was inspired by underwater scenes in the James Bond film, *Thunderbolt* (dir. Terence Young 1965). There is also the Pakistani produced telefilm, *Ghazi Shaheed* (dir. Kazim Pasha 1998) "Ghazi Shaheed – 23rd March Special Telefilm – Aaj Entertainment" https://www.youtube.com/watch?v=_QUvLrKRjUY, and the Pakistan Navy's Submarine Force information film, *Prowlers of the Deep*. "Untold Stories of PNS Ghazi & PNS Hangor". http://www.dailymotion.com/video/x31ojeb.

[20] https://www.youtube.com/watch?v=Xn2qOnKuOoc.

expanse – threatening as much as it is fascinating in the Kantian vein (see Kant 2005). When the sea is shown as a clear horizon of possibilities around the vessel in its sailing or submerged state, it speaks of adventurism and new frontiers. When the water pierces and sprays into the vessels, or when protagonists need to dive underwater at moments of crisis to save survivors, fix essential equipment or fire torpedoes in sunken compartments, it provokes tension, claustrophobia and fear. When the undersea enemy is located, it portends more terror and turbulence. The film is an epic of the elements brought to a head where challenges such as fires and explosions contrast with and add to the fragile peace and dense fluidity of the abysmal ocean.

Second, the creation of a sublime soundscape that submarine films permit is exploited to maximum potential to create scenes of solidarity, strength, suspense, strife and underwater menace as the narrative compels. Koldau asserts that the "submarine world is a world of sound". As her analysis is lyrically apt to *The Ghazi Attack* with certain modifications, I cite at length:

> The Military submarines are 'blind'; sound therefore serves to perceive and define their surroundings. Sound is vital for the submariners' survival, it is essential for their mission and decisive for their success. The public perception of submarines is based on this premise: the famous 'ping' of the sonar has become the acoustical icon of the submarine; it is accompanied by uncanny underwater sounds such as the muted drone of propulsion, the whales' song, and man-made acoustical threats such as the propulsion sound of torpedoes or the dreadful roar of a sinking ship. This public perception, though, is not founded on 'reality' or, at least, on documentaries presenting the professional world of the military submarine. Our (visual and acoustical) image of this world is entirely based on fictional film – and thus on the specific sound design of submarine films. (2010, 18)

Sound in submarine cinema demonstrates an interleafing of actuality with convention. The actuality is the necessity of reliance on the interpretation of vibrations rather than visual data and capacities that are weakened in a vessel prowling the dark depths. Deep in the sea, acoustic vibrations become the dominant bearers of knowledge, not the scopic aggregation of vision (Jay 1988; see Feld and Brenneis 2008). The latter is compromised and environs can only be glimpsed through the circles of a periscope when near the surface. The filmic convention is to compensate for this visual lack with the amplification of acoustics – sonar pings, propulsion drones, torpedo charges, and clanking metal that have become part of the recognisable portfolio of sounds of the submarine. The sonar acoustic conventions suggest suspense, expectation and waiting, the propeller drone of lurking and claiming, the torpedo rush of threat and danger, and the clanking metallic vessel of vulnerability against the pressure and weight of the water.

However, as with many other borrowed elements, these submarine film conventions become nestled in a melange of other epic, melodious or militaristic soundscapes characteristic of Indian popular war movies.[21] From the sonar to the sublime, intrigue, action stations, and conflict in the pitch-black ocean is merged with the emotive musicality and heightened sensory overload of a familiar melodrama built on threats to the nation, its fighters, and its technologies. The submarine soundscape in *The Ghazi Attack* is punctuated by a grand orchestral moves. At one point, there is even a roaring

[21] Another example is in the reuse of a dramatic soundscape combining the mystery of the submarine with the drama of militaristic nationalism in a YouTube clip on the INS Arihant https://www.youtube.com/watch?v=NHUrj1fxFGs.

rendition of the Indian national anthem by Indian submariners – the vibrations of which the Pakistani antagonists are able to pick up in the PNS Ghazi. The message resounds that even the potency of patriotism can penetrate the deep.

The third main feature identifies submarine war films as a very masculine space (see Novikova 2015). This phenomenon is even more so than those war movies based on land where a female partner, mother, agent or reporter might add narrative tension to the protagonist's fight on the frontline. Submarine cinema is less reliant upon biological or marital families as we understand them, but a putative family forged in the vessel through a relatively simple format of inside and outside, patriot and enemy that the close-knit community in the submarine permits. Koldau elaborates on these inside-outside dynamics:

> 'Outside' stands for the enemy, be it natural (water pressure, underwater canyons, maritime monsters) or human. 'Inside' is survival and homeliness: the solidarity of the crew, the mutual trust (culminating in the figure of the commander), the common interest and common destiny. Outside is bad, inside is good (2010, 20).

In *The Ghazi Attack* too, the inside of a submarine becomes a relatively warm place of camaraderie, conviviality, courage and national self-sacrifice but adapted for the Indian melodramatic convention and the specifics of Indian "heroes" and bravery as against Pakistani "villains" and dangers. Vessel inmates are the nation as family out in the wilderness with its captain as the patriarchal head. However, his authority lies elsewhere on land in naval headquarters, without which he cannot make a decision to attack. This is a situation that the Indian captain in the film sets out to challenge and change in this latter-day retrospective on the mobilisation of underwater naval forces to the frontline. Altogether, such tropes to do with selfless bravery, principle and necessity establish the idea of India as a morally driven restrained, responsible yet pragmatic power.

The outside of the vessel remains a place of dangerous mines and cold and calculating schemers with no moral mooring. Stripped of their humanity, they are mere entities to avoid or exterminate. Lighting hues add to the filmic tone. Sepia tinges enhance the essential goodness and warmth of the Indian submarine crew as against the cold blue of the external blue that again contrasts with the green lighting filter evident for the Pakistanis crew. The latter are shown to be driven by the colours of revenge and resentment, and twisted and opportunist operations including the striking of an Indian merchant ship merely to create a military distraction.

The submarine is by necessity a space of celibacy. Hardly any women are permitted in a submarine out at sea. Yet the Indian film manages to squeeze female characters into the submarine space using the conventions of melodrama that only popular film producers can seem to get away with. A woman and a young girl survive the aforementioned Pakistani attack on the merchant ship and are saved by the Indian lieutenant commander in the *The Ghazi Attack*.

The two females then live in the submarine. Adding a fanciful frisson of encounters, the lieutenant commander asserts to the older woman, who otherwise remains incidental to the main narrative: "This is the Indian navy. You are safe here". There is no romance for the union between man and woman is transposed to a union between man and machine in terms of a "first marriage to the submarine", and by extension, the nation. However, looks are exchanged of care and concern, offering a female-orientated

voyeurism to this scene of male camaraderie. This leakage of melodramatic convention is also evident when the executive officer lieutenant commander receives a message that his wife gave birth to a boy that then leads to the sharing of *ladoos* (sweetmeats) among the crew, underlining a patriarchal convention.

The fourth trait of submarine cinema is technofetishism with the film's emphasis on military technologies. PNS Ghazi is described as Pakistan's most "decorated submarine . . . speed . . . range . . . endurance . . . armament" that outstripped anything the Indian navy owned at the time. Necessarily, India's counter-operation has to reply upon ingenuity and instinct. A look at history is with a view for a lesson for the future – that this state of technological lack cannot be permitted again.

The union between man and technology is so much that the vessel appears as if it contains the "spirit of the submariner". Men take to the submarine like a fish to water quite literally where nature becomes another realm of conquest. While men are capsuled with technology, they turn to subaquatic charts, maps, machines and radars imbuing knowledge that could lead to further mastery. This technofetishism is also subject to filmic conventions – such as representations of the vessel penetrating a watery wilderness on the outside as if the vessel was a large whale, and the cylindrical and clammy claustrophobia on the inside surrounded by equipment, screens, monitors, consoles, dials, levers, gadgets, wires, pipes, vents and metal sheeting of all kind in fluorescent pools of light.

Relatedly, the fifth trait is that submarine cinema is a numerical universe, underpinned by scientific and technical rationales. Whether it be for longitude and latitude coordinates, depth metres and pressures, distance and angle manoeuvrability, technical gauges and procedures, the labelling of pipes, compartments and levels, numbers saturate the submarine space. In *The Ghazi Attack*, numerals are even juxtaposed onto maps against scenes of the submarine head crew discussing plans of action. They are reiterated in a trigonometry of tensions with the sketching of torpedo ranges, angles and directions, about how and when to manoeuvre to avoid enemy fire. The instructor is parodied as a "classroom theory officer", an exercise that also serves to tutor the audience as to necessary plans of action.

Numbers become a life and death matter especially when they signal borrowed or limited time. This could be with the time left for the submarine to submerge and emerge, the time a vessel has to withstand water pressure the further it descends, the time left for battery power and lights, the time for firing torpedoes, and the time left to breathe. This focus on the limits of time inherent in diesel-electric power might well be read as a cautionary tale for the necessity of nuclear submarines that enable a longer power supply.

Altogether the features of the Indian submarine film indicate the need to conquer the oceans and be on the offensive. This characteristic is further emphasised at a point when the captain brings out his gun to get his orders executed instead of waiting for permission from naval headquarters. Flying against the face of submarine strategic command-control, the captain's actions are incorporated to convey the significance and autonomy of a hitherto overlooked naval force in the defence of the country. A line by the lieutenant commander emphasises this latter-day promotion of naval forces: "We stand guard at the border" – a fluid border now under the sea.

Despite the classified nature of this mission, which was before the war with Pakistan that started in December 1971, the lieutenant commander asserts: "Whether history

remembers us or not, we will definitely be part of India's future. Jai Hind!" It is a rousing speech that the crew hail with visibly palpitating passion. The film ends with a brassband rendition of the Indian national anthem and the waving of flags as the submarine surfaces and announces the vanquishing of the enemy and victory of the underwater realm. The final titles emphasize once again the stealth-spectacle tension: "Even after 46 years, the truth remains hidden beneath our waters".

Digital Defence and Defensiveness

The scope of Indian war movies has come down from exercising supremacy in the skies and on land to scrutinise the expanse, turbulence and opacity of the depths and thereby entertain ambitions of dominion in and over the sea. Judging by the success of *The Ghazi Attack*, the governmental and public interest in submarine technologies, and the waves created by the INS Arihant SSBN, more films in this ilk may well be in the offing as part of "the Ghazi Attack effect". Footage from the *The Ghazi Attack* certainly appears in digital mashups that demonstrate a bricolage of sounds, visual and audio-visual imagery and enhanced by diagrams and other effects. Even though they pertain to show the Indian nuclear submarine, in effect, a vast array of imagery is used from different fleets around the world – actual and fictional – and moulded together with a bold narrative, so as to the uninitiated, they all appear to be Indian submarines in spirited action.

The audio-visual potential is exploited by home movie-makers for web platforms like YouTube. As with *The Ghazi Attack*, the sea is identified as an intriguing and important realm for combat and control. But the five traits identified in submarine war films show a degree of divergence. First, digital films are more in the vein of an illustrated and animated lecture, using audio, visual and audio-visual elements to support a pedagogic mission that borders more explicitly on the propagandist. Suspense and silence is minimal enabling little moment for pause. Second, the digital outputs are much more eclectic in tune to the creative borrowings of social media users, for the most part, immune from heavy penalties on plagiarism. Imagery and music is borrowed from a wide variety of sources that swamps the suspenseful ping of the submarine. The propulsive sounds of suspense are drowned out by the celebratory sounds of success. Third, the format of inside and outside, patriot and enemy enabled by the close-knit community in an underwater vessel is transposed to the community of social media users and viewers. Covert technology is unbolted to embrace the overt technology of a worldwide web so as it flows into the steroid nationalism of online media (Udupa 2016). Such outputs are of the "like, share and subscribe" generation orientated towards young people. Fourth, technofetishism is more in the *telling* rather than in the *showing* and in prospective futures rather than retrospective pasts. Fifth, the numerical emphasis extends to the costs and dimensions of the vessels rather than the decisions and movements that characterise submariners stuck inside a technology pitched in an action-packed movie. The digital outputs come with the reeling of a variety of technologies, facts and figures, indicating the scientific bend of mind of the makers and their target audience. Ironically, the science of submarine plans and manoeuvres essential to the narrative drive is better explained to the layperson in the fictionalised film. In the digital outputs, the techno-scientific data are rarely explained or corroborated as they reiterate wholesale phrases and statements from military defence website (see Ramana and

Gadekar 2003). The phenomenon indicates less a "scientific temper" (Nandy 1988) than, in an adaptation of Udupa's view of online nationalism, "science on steroids".

One example on Indian submarines that has received more than a million views since 2018 is produced by India Meri Jaan Production compiled from found stills, audio and audio-visual footage integrated with diagrams and computer graphics.[22] The ten-minute audio-visual bricolage is divided into two parts – first, an overview of the 16 submarines in India's fleet including the INS Arihant and an explanation of SSBN and SSN submarines; and, second, a prospective on "modernising the Indian navy" with its plans to make 34 new submarines including 13 nuclear submarines in India with internationally endorsed advanced technologies by 2025.

Beginning with a spinning globe of planet earth, the short film emphasises the importance of the sea to India with its coastline of nearly 500 km and the threat that countries like China and Pakistan pose. It then dives down into the oceans with an overview of different classes of submarines, the costs of manufacture, international collaborations and indigenous productions, new projects, torpedoes in action, and a particular focus glorifying the advent of the SSBN, INS Arihant, for which we are told is Sanskrit for "killer of the enemy" (*dushmano ka hatyara*).

Imagery of submarines travelling in and on the sea is replete throughout. The SSBN is described as "the invulnerable tool of nuclear deterrence" with speeded up film and an epic soundtrack indicating a relentless onward pace – a sense of roving, non-stop searching to combine with non-stop surveillance and protection. The music is borrowed from online sources to make it a "*zabardast [forceful] video*", to cite one of the commentators, including the film, *Pirates of the Caribbean*, that is described as 'Pirate Epic War Music! Best Powerful Military Soundtrack'.[23] Such elements are availed of by the creator "under fair use for educational purposes" with a "Copyright Disclaimer Under Section 107 of the Copyright Act 1976, [where an] allowance is made for 'fair use' for purposes such as criticism, comment, news reporting, teaching, scholarship, and research."

An adventurist streak on "India's deadliest submarines" likened to predators of the natural world are placed next to naval officers in white, visualising a pure, responsible and selfless camaraderie. This focus on submarines is integrated with ships and airborne vehicles to give a sense of the full spectrum protection of India's coastline and sovereignty. This "us" is against an abstract yet definitive "them". The "them" are abstract in that enemy forces are indicated through target vessels and missiles in motion, and at one point, allusion is made to deep sea diving "special forces in enemy port" in action. The opposition is definitive in that reminders are dropped throughout the narrative about the technological pace and threats posed by particular antagonists. A notable insert is a composite slide against a futuristic space backdrop and national flags with, on one side, premiers Donald Trump and Narendra Modi in embrace next to the acronyms ISRO (Indian Space Research Organisation) together with NASA (National Aeronautics and Space Administration). On the other, posing a singular threat to "responsible powers" to the west, is the Chinese President Xi Jinping.

[22]https://www.youtube.com/watch?v=VR1E_sTUz58.

[23]https://www.youtube.com/watch?v=ElfO3Z7FFyQ Footage is reused in this video clip on the ten nations with the most number of nuclear submarines with India being number six after USA, Russia, China, Britain and France https://www.youtube.com/watch?v=5EETwzsLvho.

The overall message in the media is that the pace of submarine innovation is inevitable and most importantly, necessary if India is to follow the technological curve, defend its sovereignty and, to cite the narrator, make it "stronger in the world". This message is reiterated by the consumers: "Make more submarines, so that INDIA can defend & thwart off any danger [sic]" writes one viewer. Despite India's current technological lag, one of the submitters gloats: "Honestly china is ahead of us BUT INDIA will defeat china in a few years [sic]." Others agree with a pumped up bravado: "india should take fast decisions to beat both China and Pakistan in one go in coming 5 years. in defence sector [sic]." A couple of others let their no-holds barred jingoistic diatribe come out: "Poor Fukistan junk and made in China toys will be nothing in front of Indian navy [sic]". Although such arrogant assertions are not explicit in the digital and filmic outputs, they certainly fuel the jingoistic fire.

The inside-outside dynamic within the diegetic frame is vehemently opened up to embrace the views and fantasies of those of like persuasion. One viewer even describes the prospect of more submarines as "a dream", conjuring up desires to work for the navy. Another was compelled to muse: "How to join submarine crew officer". Camaraderie is looped from inside the vessel to the outside community of viewers, subscribers and commentators on the film, who yearn to be inside the submarine. This circuitous strand of solidarity is also emphasised by the narrator's constant appellation, *dosto*, a Hindi term used to hail male companions.

Technofetishism is evident throughout with the spectacular renditions of the submarines, targeting technologies and missiles, enhanced by found footage, computer graphics and specialist terms that convey more intrigue than information: "state of the art sensors and control systems", "silent permasyn propulsion enhances stealth", and "enhanced intelligence and surveillance capacity". The narrator also alludes to the "Indian government's establishment of a secret ground base where six submarines are being built".

Such digital films fuel imaginaries of greatness under the guise of "education". Yet only so much information can be given. This is yet another manifestation of the labour of the negative with a sprinkling of tantalising exposure that underlines a sense of the unknown. Through dramatisation, comes a level of responsible restraint. A couple of the comments endorse this tensile allure, suggesting that not all details about submarines or strategies should be provided to the public in view of the submarine's special role in India's national security. The submarines' part in stealth politics had to be kept in mind when spectacularising its potentials.

Leading the country onwards and upwards through literally going downwards, the digital clip ends with a nationalistic salute to India, "*Jai Hind*", a message that is endorsed by the numerous comments below the YouTube clip with variations thereof like *"India Zindabad" (Victory to India), "Hindustan meri Jaan" (India is my life)*, and in English, *"I love India", "India is my heart"*, and *"Long live Make in India … India rocks"*. Indeed, it is nationalistic sentiments and expressions such as these that dominate the viewers' feedback in their "imagined community" (Anderson 1991). The Hindu nationalistic vein is further evident with plaudits to Modi as the leader of the Hindu right-wing Bharatiya Janata Party, and slogans to the god, Ram, as in "*Jai Shri Ram"*, a theme that we next turn to. Effectively along with knowledge about its superior capacity to navigate and patrol the oceanic expanse and depth, the

submarines crowned now with the king of them all, the INS Arihant, permits the idea that 'the deep belongs to us'.[24]

Nativist Masculinity

Nuclear escalation that mars geopolitical stability are interpreted as a natural "process of evolution", a coming into being.[25] An integral part of this view is to look to the past to justify the present and future. Hindu nationalism in popular culture over the last few decades (Kapur 1993; Davis 1996; Rajagopal 2001) is in tandem with the growth of a militaristic-nativistic stance. Future fantasies rescript military hardware such as aeroplanes, nuclear weapons and other advanced technologies into the folds of India's history. Submarines too have been pulled into nativist compulsions. It is patently clear in their adopted Sanskrit names as it is the rereading of historical texts that allude to ancient technologies. The *Vaimanika Shastra*, for instance, is a text reputed to have been devised in the nineteenth century and first published in Sanskrit in the early twentieth. It largely focuses on aeronautical *vimana* (vessels) said to be found in ancient Sanskrit texts. Reference is also made to something akin to the atomic bomb (*brahmastra*), and erstwhile crafts that could transform into boats and submarines. One commentator notes on the *Vaimanika Shastra*:

> The text goes on to describe a number of specific vimana models (complete with fine drawings by a local engineer), serving various purposes; some are built to carry hundreds of passengers or large loads of ammunition, others have the capacity to transform into boats or submarines.[26]

Allusions to aggrandising technologies such as protective force fields and invisibility are also in the text that might be used by vessels whether they be air- or seaborne. Mostly dismissed by military, political and scientific experts, the text nevertheless provides authenticating narratives of indigenous glory.

Along with such dynamics, comes a narrative of retrieved masculinity (Hansen 1996). Catering to Hindu nationalist and populist sentiments, former BJP prime minister Atal Bihari Vajpayee declared that the Pokhran II tests were "symbolic of strength and power and would give India something to be proud of" (cited in Chengappa 2000, 50). As with nuclear tests, missile and rocket launches, so with submarine commissioning. They have become mammoth technoscientific ciphers in the project to offset India's image of soft, weak or effete leadership. The nativist Shiv Sena premier, Bal Thackeray, put it aptly at the time of the 1998 tests in the Pokhran desert: "We have proved we are not eunuchs any more" (cited in Schell 2007, 54). But whereas with nuclear tests the hypermasculine message is made loud and clear, with nuclear submarines, it lies relatively quiet and latent. Still there is a libidinal investment in the nuclear submarine. Modi describes INS Arihant as "an open warning for the country's enemies, for the foes of peace: Don't try any misadventure against India" (Woody and Reuters 2018). Against this projection of

[24]See https://www.youtube.com/watch?v=Cisf_i9wf1A.
[25]"INS Arihant, Its Technologies, Missiles And Nuclear Reactor", *NDTV*, 6 November 2018. https://www.youtube.com/watch?v=FZL0SxPjWU4.
[26]"India: An Aryan Conspiracy, Ancient Technology and Secret Brotherhoods". http://www.abovetopsecret.com/forum/thread730947/pg1 translated from Sanskrit into Hindi in 1959 and then English in 1973. See Shastry and Josyer (1973).

a vitally potent India, the nuclear submarines are what might be seen as floating phalluses in a politics of the quiet – symbolic of national aspirations for dominion in the vast ocean against its long-time antagonists, Pakistan, and a mightier force to the east, China, that lies in the background, and only occasionally makes it into Indian cinematic spectacle.

What Lurks Ahead?

Nuclear submarines are carving out a new space for the deep assertion of nuclear and technological prowess that is beginning to make a mark in audio-visual and digital outputs in the Indian subcontinent. Borrowing from a global aesthetic in submarine films, interventions in Indian popular culture demonstrate several strands: an indulgence in novel aquatic realms; a reliance on acoustic conventions; the significance of inside-outside dynamics in the sealing of "us" against "them"; technofetishism that enables more ambitions to conquer the sea; and a numerical overkill that showcases scientific skills, trigonometry, technologies, and the carving of spaces and geographies with consummate force.

The audio-visual-digital phenomena reflect and refract *realpolitik* while labouring on a negative between a series of oppositions. These include the significance of stealth as against spectacle, secrecy as against information, quiet as against noise, prototype as against functionality, indigenous as against international, and unfulfilled aspiration as against the drive for mastery. Through restraint, the narratives emphasise responsible prowess. Through suppression, they emphasise advancement on technological and nationalist grounds that, in the contemporary era, is overwhelmingly tinged with Hindu Right nativist rhetoric of precolonial precedent and postcolonial destiny.

Both on counts of stealth and spectacle, our critical interrogation of such representations is imperative. Unlike the aftermath of the nuclear tests of 1998 (Bidwai and Vanaik 1999; Kothari and Mian 2003; Ramana and Rammanohar Reddy 2003), less people have spoken out against the development of SSBNs in India in a political culture that has either normalised nuclear initiatives in the name of the nation or adopted an "out of sight, out of mind" attitude. When information is scarce and much of it is unverifiable, elite orchestrated discourses frame opinion on otherwise arcane subjects. It then becomes incumbent on us as thinkers and doers to shake up hegemonic assumptions, read between the lines, look to related sources and developments, make credible connections, and expose their logics or lack thereof. Perhaps this way one could develop and amplify a critical consciousness or conscientiousness that is not seduced by the allure of stealth-spectacle dynamics.

The fetishisation of 'indigenous' production and technological achievement as against enemies that have assumed gigantic proportions has eclipsed virtually all other assessments of nuclear submarines. It is part of a silent domination of popular culture and forms the basis of an uncritical consensus. However, while popular culture absorbs, perpetuates and domesticates dominant discourse, it is simultaneously a corrosive arena for the rise of resistance, opposition and alternative narratives as Gramsci (1971) had foretold. Intrigue needs to turn into critique across the board with regards to the acceleration of nuclear submarine fleets across the seas, and the relative ease of obscuring any submarine mishaps or dangers in the deep ocean (see Mian, Ramana, and Nayyar 2019).

Apart from checking the aggrandisement of technological achievements, we need to question the extent to which threats are actual or "framed" (Herz, Dawood, and Lage 2017) so as to generate consensus for nuclear expansion. Concerns also span more domestic issues that have not been adequately addressed. Demands could be made for transparency around funding sources and costs, and to the detriment of which other publicly funded projects. What kinds of environmental implications are there for nuclear submarines when in-vessel living and working conditions with regards to the control of radiation, atmosphere, climate and epidemiological, microbiological and psychological factors (Davies 1972). What are the out-vessel environmental repercussions for operating and sunken nuclear submarines? What about the construction, maintenance, refuel, refit and dismantlement of nuclear submarines, and any accidents that might happen anywhere along its cycle?.[27] What happens to the nuclear waste from the reactors installed in the underwater vessels? Relatedly, following Cressey (2008), what effects do increasing sonar technologies of an expanding naval fleet used in the seas have on marine mammals including critically endangered species that have little worth in military calculations?

Once we take away the sleek patina of strategic ambitions, diplomatic rhetoric, technophilia, nationalist hype, indigeneity, and affective associations, we can highlight and disseminate how nuclear submarines are not just stealthy missile systems but also dangerous floating reactors around and through which a lot can be veiled. How might we pursue such enquiries in highly classified and opaque territories in order to move towards genuine peacebuilding without being cast off as national security threats or spies? In an era of growing nationalism that is sweeping aside alternative views, critique, debate and dissent, this might well be the most challenging obstacle.

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No potential conflict of interest was reported by the authors.

Notes on Contributor

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[27] On an overview of submarine accidents as a result of explosions, floods and collisions from 1945, see Christopher Tingle (2009). A list of accidents worldwide can be accessed here http://www.asse.org/assets/1/7/Tingle_Table1_0909.pdf See also Høibråten, Thoresen, and Haugan (1997), Weber (2017), and Mian, Ramana, and Nayyar (2019).

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